

Requirements for Workshop Laptops

Attendees must provide the following:

- Laptop computer with power cord
- Laptops must be able to access the LLNL green wireless network - prove this beforehand
- Laptops must have SSH software with the ability to display X11 clients. See the instructions for your platform below for details.

Mac Instructions:

1. Verify that you can open a terminal window (Applications --> Utilities --> Terminal)
2. Verify that you have **XQuartz** installed and then start the application to make sure it works. It should be in the Utilities folder.
3. If you can't find XQuartz, you can download and install it yourself. The software and online support are available at <https://www.xquartz.org/>. A youtube video can also be found at: <https://www.youtube.com/watch?v=uS4zTqfwSSQ>.

Linux Instructions:

1. Linux comes with SSH and X11 installed. Nothing needs to be done.

Windows Instructions - for LLNL owned machines:

1. Verify that X-Win32 is installed on your machine: Start menu --> All Programs --> X-Win32 2012
If you can't find it, you can attempt to download/install it yourself:
Start menu --> All Programs --> LANDesk Management --> Desktop Manager
Select X-Win32 from the long list of applications and then "Deploy"
2. After installing, verify that it can start up on your machine: Start menu --> All Programs --> X-Win32 2012

Windows Instructions - for personally owned machines:

If you don't already have something like X-Win32, PuTTY and/or Xming installed, you can try either of the following.

- Install both PuTTY for SSH and Xming for X11 software. These are free, and both will need to be installed for full functionality. For PuTTY: <http://www.putty.org/> For Xming: <https://sourceforge.net/projects/xming/>
- Alternately, you can obtain a 30-day trial version of X-Win32 from: <https://www.starnet.com/xwin32/>